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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

KANG, INSUN

ART UNIT

PAPER NUMBER

2193

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DELIVERY MODE

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 09/808,501	Applicant(s) BEAVEN ET AL.	
	Examiner INSUN KANG	Art Unit 2193	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 April 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-49 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-49 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

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DETAILED ACTION

1. This action is in response to the amendment filed on 4/30/2008.
2. Claims 1-49 are pending.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-14, 17-30, 33-46, and 49 are rejected under 35 U.S.C. 103(a) as being unpatentable over Negri (US 2002/0059079) in view of Schmidt ("QoS for Distributed Object Computing Middleware -- Fact or Fiction?," May 22nd, 1997, Columbia University).

Per claim 1:

Negri discloses:

-a component specification element that specifies components (i.e. "Defines the principal components in a service. These include the software services and related physical elements that combine to deliver the service," 0048);

Negri does not explicitly disclose that the components are reusable components. However, Schmidt discloses using a reusable component was known at the time the invention was made to "reduce development effort and increase software quality (page 1, first paragraph)."

Therefore, it would have been obvious for one skilled in the art of the pertinent art to modify Negri's disclosed system to incorporate the teachings of Schmidt. The modification would be

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obvious because one skilled in the art would be motivated to reuse the existing components for fast and flexible application development.

-a control flow specification element that specifies control flows (i.e. “The business process involves the flow of data and control through a complex arrangement of these components...eService management must understand this flow of data,” 0046; 0049, “the relationship graph defines the actual topology of the model. Components can depend on each other,” 0050)

Negri teaches

- a data flow specification element that specifies data flows (i.e. “The business process involves the flow of data and control through a complex arrangement of these components...eService management must understand this flow of data,” 0046; 0049; “the relationship graph defines the actual topology of the model. Components can depend on each other,” 0050);

-a resource specification element that specifies resources (i.e. “Components can depend on each other...but they can also share common resources,” 0050, 0051, 0060, 0063);

-a quality of service specification derivation element, the quality of service specification derivation element (i.e. “deriving an e-service management strategy based on said business process specification...ensuring the service quality of said e-service,” claim 1; 0036; 0050; 0057; 0063) having for output an application model in combination with a quality of service specification derived by implication from relations between the components, the control flows, the data flows and the resources (i.e. “a service delivery model...to assure the customer experience at the point of service delivery,” 0063; “An eService model...Defines the principal components in a service...Components are modeled by service delivery function...Process and

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responsibilities may be defined by function...Establishes implicit and explicit relationships...share common resources, exchange data with each other, collect common statistics, and work together in complex flows of control,” 0047-0050; 0046);
-wherein the quality of service specification derivation element tests the components and the relations between the components to derive the quality of service specification (i.e. 0056; 0060).

Negri does not explicitly disclose that the quality of service specification (the service delivery model) is made available to a runtime engine for deployment as a runtime contract in a runtime processing environment. However, it would have been obvious for a person having ordinary skill in the pertinent art at the time the invention was made to modify Negri’s disclosed system to derive a runtime contract from the service delivery model (described at build time) at the point of service delivery (runtime) to enforce the service delivery specification in the model. The service delivery model in Negri would help “ensuring the quality of eService delivery (0023)” when deployed at runtime.

Per claim 2:

The rejection of claim 1 is incorporated, and further, Negri discloses a runtime engine for deploying said runtime contract (i.e. “Service Level Agreements (SLA),” 0014; “a WebLogic BeX can be deployed at any site built upon BEA’s WebLogic application server, 0058; claim 1; 0036; 0050; 0057; 0063) as claimed.

Per claim 3:

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Negri does not explicitly disclose that said runtime contract comprises a messaging requirement contract. Negri discloses a service level agreement (SLA) that specify the levels of service (0014) and a Service level management tool that measures service delivery (0036). Therefore, it would have been obvious for a person having ordinary skill in the pertinent art at the time the invention was made to modify Negri's disclosed system to include a messaging requirement in the service delivery contract to help "ensuring the quality of eService delivery (0023)."

Per claim 4:

Negri does not explicitly disclose that said runtime contract comprises a transactionality requirement contract. Negri discloses a service level agreement (SLA) that specify the levels of service (0014) and a Service level management tool that measures service delivery (0036). Therefore, it would have been obvious for a person having ordinary skill in the pertinent art at the time the invention was made to modify Negri's disclosed system to include a transactionality requirement in the service delivery contract to help "ensuring the quality of eService delivery (0023)."

Per claim 5:

Negri does not explicitly disclose that said runtime contract comprises a security requirement. Negri discloses a service level agreement (SLA) that specify the levels of service (0014) and a Service level management tool that measures service delivery (0036). Therefore, it would have been obvious for a person having ordinary skill in the pertinent art at the time the invention was

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made to modify Negri's disclosed system to include a security requirement in the service delivery contract to help "ensuring the quality of eService delivery (0023)."

Per claim 6:

Negri does not explicitly disclose that said runtime contract comprises a recoverability requirement. Negri discloses a service level agreement (SLA) that specify the levels of service (0014) and a Service level management tool that measures service delivery (0036). Therefore, it would have been obvious for a person having ordinary skill in the pertinent art at the time the invention was made to modify Negri's disclosed system to include a recoverability requirement in the service delivery contract to help "ensuring the quality of eService delivery (0023)."

Per claim 7:

Negri does not explicitly disclose that said runtime contract comprises a completion requirement. Negri discloses a service level agreement (SLA) that specify the levels of service (0014) and a Service level management tool that measures service delivery (0036). Therefore, it would have been obvious for a person having ordinary skill in the pertinent art at the time the invention was made to modify Negri's disclosed system to include a completion requirement in the service delivery contract to help "ensuring the quality of eService delivery (0023)."

Per claim 8:

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Negri does not explicitly disclose that said runtime contract comprises a completion requirement contract. Negri discloses a service level agreement (SLA) that specify the levels of service (0014) and a Service level management tool that measures service delivery (0036). Therefore, it would have been obvious for a person having ordinary skill in the pertinent art at the time the invention was made to modify Negri's disclosed system to include a completion requirement contract specifying transactional behavior in the service delivery contract to help "ensuring the quality of eService delivery (0023)."

Per claim 9:

Negri does not explicitly disclose that said runtime contract comprises a completion requirement contract specifying compensation behavior. Negri discloses a service level agreement (SLA) that specify the levels of service (0014) and a Service level management tool that measures service delivery (0036). Therefore, it would have been obvious for a person having ordinary skill in the pertinent art at the time the invention was made to modify Negri's disclosed system to include a completion requirement contract specifying compensation behavior in the service delivery contract to help "ensuring the quality of eService delivery (0023)."

Per claim 10:

Negri does not explicitly disclose that said runtime contract comprises at least one of a reliability, availability and serviceability requirement. Negri discloses a service level agreement (SLA) that specify the levels of service (0014) and a Service level management tool that measures service delivery (0036). Therefore, it would have been obvious for a person having

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ordinary skill in the pertinent art at the time the invention was made to modify Negri's disclosed system to include at least one of a reliability, availability and serviceability requirement in the service delivery contract to help "ensuring the quality of eService delivery (0023)."

Per claim 11:

The rejection of claim 1 is incorporated, and further, Negri discloses a quality of delivery requirement contract (i.e. "Service Level Agreements (SLA)," 0014; "quality of eService delivery," 0023) as claimed.

Per claim 12:

Negri does not explicitly disclose that said runtime contract comprises at least one of a priority requirement and a response goal requirement. Negri discloses a service level agreement (SLA) that specify the levels of service (0014) and a Service level management tool that measures service delivery (0036). Therefore, it would have been obvious for a person having ordinary skill in the pertinent art at the time the invention was made to modify Negri's disclosed system to include at least one of a priority requirement and a response goal requirement in the service delivery contract to help "ensuring the quality of eService delivery (0023)."

Per claim 13:

Negri does not explicitly disclose that said runtime contract comprises a performance requirement. Negri discloses a service level agreement (SLA) that specify the levels of service (0014) and a Service level management tool that measures service delivery (0036). Therefore, it

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would have been obvious for a person having ordinary skill in the pertinent art at the time the invention was made to modify Negri's disclosed system to include a performance requirement in the service delivery contract to help "ensuring the quality of eService delivery (0023)."

Per claim 14:

The rejection of claim 1 is incorporated, and further, Negri discloses the quality of service specification is stored in a repository (i.e. 0051).

Per claim 17:

The rejection of claim 1 is incorporated, and further, Negri discloses a quality of service specification is stored in a modeling language (i.e. "eService modeling," 0044) as claimed.

Per claims 18-30 and 33, they are the method versions of claims 1, 2, 4-14 and 17, respectively, and are rejected for the same reasons set forth in connection with the rejection of claims 1, 2, 4-14 and 17 above.

Per claims 34-46 and 49, they are the computer program product versions of claims 18-30 and 33, respectively and are rejected for the same reasons set forth in connection with the rejection of claims 18-30 and 33 above.

5. Claims 15, 16, 31, 32, 47, and 48 are rejected under 35 U.S.C. 103(a) as being unpatentable over Negri (US 2002/0059079) in view of Schmidt ("QoS for Distributed Object Computing Middleware -- Fact or Fiction?," May 22nd, 1997, Columbia University), further in

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view of Koistinen et al. ("Quality of Service Aware Distributed Object Systems," 5/1999) hereinafter referred to as "Koistinen."

Per claim 16:

The rejection of claim 1 is incorporated, and further, Negri and Schmidt do not explicitly teach that the quality of service specification is stored in XML. However, Koistinen teaches that storing a quality of service specification in a tagged markup language such as XML was known in the pertinent art, at the time applicant's invention was made, "so that it can be understood readily by humans and parsed easily (pg 9, Implementation section)" such as that disclosed in Koistinen. It would have been obvious for one skilled in the art of the pertinent art to modify Negri and Schmidt's disclosed system to use XML. The modification would be obvious because one skilled in the art would be motivated to provide readability and ease parsing as taught by Koistinen (pg 9, Implementation section).

Per claim 32, it is the method version of claim 16, respectively, and is rejected for the same reasons set forth in connection with the rejection of claim 16 above.

Per claim 48, it is the computer program version of claim 16, respectively, and is rejected for the same reasons set forth in connection with the rejection of claim 16 above.

Per claim 15, this claim is broader version of the claimed system discussed in claim 16 wherein all claim limitations also have been addressed and/or covered in cited areas as set forth the above. XML in claim 16 is a tagged markup language. Therefore, accordingly, see the rejection of claim 16 above.

Per claim 31, it is the method version of claim 15, respectively, and is rejected for the same reasons set forth in connection with the rejection of claim 15 above.

Per claim 47, it is the computer program version of claim 15, respectively, and is rejected for the same reasons set forth in connection with the rejection of claim 15 above.

Response to Arguments

6. Applicant's arguments filed on 4/30/2008 have been fully considered but they are not persuasive.

The applicant states that it would have not been obvious to modify Negri's disclosed system to derive a runtime contract from a service delivery model (remark, page 10).

In response, Negri discloses "deriving an e-service management strategy based on said business process specification...ensuring the service quality of said e-service (claim 1; 0036; 0050; 0057; 0063)." Negri's eService management system uses the eService model and BeXs to "assure the customer experience at the point of service delivery (0063)." Although Negri does not explicitly state the eService model is made available to a runtime engine for deployment as a runtime contract in a runtime processing environment, the service delivery model specifying how the business process should be executed at runtime in combination of BeXs control(0063) would be later sent to a processor for execution (runtime engine) to assure the quality of service specified in the service model. The terms/specification in the model would become a runtime contract at execution by a runtime engine (processor). Therefore, it would have been obvious for a person having ordinary skill in the pertinent art at the time the invention was made to modify Negri's disclosed system to derive a runtime contract from the service delivery model at the point of service delivery to enforce the service delivery specification in the model. The service

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delivery model in Negri would help “ensuring the quality of eService delivery (0023)” when deployed at runtime.

Conclusion

7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to INSUN KANG whose telephone number is (571)272-3724. The examiner can normally be reached on M-R 7:30-6 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lewis A. Bullock, Jr. can be reached on 571-272-3759. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from

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either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Insun Kang/
Examiner, Art Unit 2193

/Lewis A. Bullock, Jr./
Supervisory Patent Examiner, Art Unit 2193